facilities to use in offering local exchange service: Shell Offshore Services Company currently offers only resold services, and Cox Fibernet, which maintains a hybrid coax/fiber network in New Orleans, does not yet have an interconnection agreement with BellSouth. Although these facilities should not be ignored, they do not comprise a level of sunk investment specific to serving the local exchange that establishes the presence of meaningful, actual competitive entry.

III. PCS Cannot Yet Be Considered a Close Competitor to Wireline Services

BellSouth's application relies upon the existence of PCS providers in Louisiana as evidence of local exchange competition. (BellSouth Brief at p. 8) However, as I now discuss, PCS has yet to establish itself as a significant direct competitor to wireline service. Consequently, the presence of PCS providers does not demonstrate that BellSouth faces significant facilities-based competition, nor that BellSouth's local markets in Louisiana are open to meaningful competition. In the absence of evidence that PCS is a close substitute for wireline service, at comparable cost, a public-interest evaluation of BellSouth's Section 271 application must rely upon the existence of actual and potential wireline competitors and the degree to which wireline local competition has been enabled in Louisiana.

Local competition will have arrived once competitive local exchange carriers are able to exert sufficient competitive pressure on BellSouth to erode its monopoly power. I am aware that Congress did not impose fully competitive local exchange markets as a prerequisite for BOC entry into in-region interLATA markets. However, the public interest does require that local competitors provide an actual commercial alternative to the BOC's local exchange service before Section 271 authority is granted.

From an economic point of view, for competitive carriers to place real competitive pressure on the BOC and make inroads to reducing the BOC's dominant market position, they must offer services that are (1) regarded by many customers as a close substitute for the BOC's local exchange services, and (2) comparable in cost to the BOC's local exchange services. PCS in Louisiana does not currently fulfill these requirements. PCS in Louisiana is a niche service attractive to only a very small portion of customers in the local exchange market. Providers do not intend PCS to be a replacement for wireline service. They are not marketing PCS as a competitor to BellSouth's traditional wireline service, and there is scant evidence that consumers perceive PCS as a true substitute for wireline service. Most importantly, PCS remains significantly more expensive than BellSouth local service for the overwhelming majority of Louisiana customers.

PCS in Louisiana today simply is not a practical economic alternative to BellSouth's local exchange service for the vast majority of customers. Consequently, PCS "competition" does relatively little to enhance consumer choice or drive retail rates towards cost. Ultimately, the existence of PCS providers in Louisiana fails to demonstrate that BellSouth's local exchange markets are open and competition is adequately enabled.

A. PCS is Targeted at a Niche of the Local Exchange Business

PCS providers in Louisiana are positioning themselves as competitors to *cellular service*, not as an alternative to traditional wireline service. Nor have PCS providers in Louisiana indicated plans to market their services as an alternative to BellSouth local service. Analysts and consumers alike perceive PCS as an alternative to cellular, not wireline, service.

Telecommunications analysts, providers and consumers regularly acknowledge the existence of distinct telecommunications markets and highly differentiated services: wireline local exchange services must be distinguished from access services and from wireless services. Congress explicitly excluded cellular and exchange access services from Section 271's definition of telephone exchange service. PCS, to date, is best considered as a new technology that augments competition within the wireless market.

PrimeCo and Sprint PCS, both PCS providers in the New Orleans market, emphasize in their advertisements the advantages of PCS over cellular, and make no reference to wireline service in general or BellSouth local service in particular. PrimeCo ads running in the New Orleans newspaper The Times-Picayune this year read "Goodbye cellular. Hello PrimeCo." Others emphasize the advantages of PCS over cellular: "Greater security and clarity" and "No annual contracts to sign." Sprint PCS radio and television spots in New Orleans share the same message, describing PCS as "the clear alternative to cellular." These advertisements emphasize the extent to which PCS providers do not consider themselves to be an alternative to wireline service, but rather an alternative to cellular.

Analyst reports repeatedly compare PCS to cellular on the basis of price and product offerings, with no mention of wireline services. The Telecommunications Research and Action Center (TRAC), a nonprofit consumer group, defines PCS as "a type of cellular service" in a report designed to advise consumers of their wireless alternatives.[1] An October 1997 Robinson-Humphrey report notes that the effect of Sprint PCS' 10-cent-per-minute plans in New Orleans has been to encourage PCS and cellular competitors PrimeCo, Radiofone and BellSouth Mobility to lower their prices.[2] Smith Barney predicts that PCS

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[1] "A Consumer's Guide to the Changing World of Cellular Telephones," Telecommunications Research and Action Center, October 9, 1997, p. 30.

[2] "PCS vs. Cellular - Industry Report," by P.D. Walter et al., The Robinson-Humphrey Company, Inc., October 8, 1997.

providers will gain market share *within the wireless market.*[3] In none of these reports is any mention made of PCS' position within or effect upon the wireline market.

Moreover, although BellSouth argues that "substitution between wireless and wireline calling is occurring" in Louisiana, the evidence on this point is minimal. (BellSouth Brief, p. 16) BellSouth cites a study completed by M/A/R/C Research indicating that 17% of New Orleans PCS users chose PCS instead of wireline service. I do not find this study at all convincing in demonstrating that the presence of PCS erodes in any meaningful way BellSouth's monopoly position in local exchange services in Louisiana. First of all, about one-quarter of this 17% subscribed to PCS instead of a second wireline - in other words, these are consumers who continue to use BellSouth wireline service as their primary phone line. Second, even if accurate, this 17% is out of a universe of "8000 plus" Sprint PCS and PrimeCo customers in Louisiana, and thus represents a total of less than 1500 customers in the entire state. (BellSouth Brief at p. 16) Finally, this same study reports that while PCS users' primary reason for choosing PCS is the desire for a mobile option instead of cellular, this is an even stronger motivating factor among Louisiana customers than it is among the entire sample, which includes other BellSouth states. Almost 50% of Louisiana PCS customers want a mobile alternative to cellular, compared with 35% of all surveyed users. M/A/R/C Research itself concludes that "the desire to switch away from a current cellular option is a particularly strong motivation among PCS users in Louisiana." (Denk Declaration, Appendix D, Tab 5 of BellSouth's Application, p. 5) If this study reveals anything, it is the extent to

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[3] "Wireless Services Second Quarter Review - Industry Report," by T.J. Lee, Smith Barney, August 27, 1997.

which PCS in Louisiana is perceived as an alternative to cellular, not wireline, service.

Of course, over time PCS may indeed prove itself to be a viable direct competitor to wireline local service. Advances in wireless product quality, including PCS' greater clarity and security over cellular, are working to narrow the gap between wireless and wireline services. But a sizable gap still remains, and until PCS attains the mass market appeal of wireline local service it cannot exert significant competitive pressure on BellSouth. Industry analysts agree that while PCS may have the potential to compete against wireline service in the future, its current market position is as a competitor to cellular. Furthermore, there remains considerable uncertainty over whether PCS will ever grow to be a significant threat to wireline local exchange services. For example:

> [I]t will take some time for wireless to ever displace the landline network. Some in the industry are hoping and planning for that. In the words of APC's Anne Schelle, 'replacing landline is in every PCS provider's business plan *down the road.*' Others don't see wireless ever becoming ubiquitous enough to threaten the wireline network. For the present, however, the competition between PCS and cellular is opening up markets that have been tied up in duopolies since their inception, and bringing with it the benefit of new features and lower prices.[4]

B. PCS is Not Comparable in Price to Wireline Service

Even if the quality gaps between wireless and wireline technologies are narrowing, the price gap remains substantial. For the vast majority of residential consumers in Louisiana, PCS service remains far more expensive than BellSouth's wireline service, despite BellSouth's claims to the contrary. While PCS undoubtedly offers benefits that wireline service cannot offer, most notably

[4] "The Great PCS Buildout: A Status Report," by Angela Littwin, *Telecommunications*, April 1997, emphasis added.

mobility, until it can offer basic local exchange service at prices comparable to those offered by the BOC it will not be a meaningful economic alternative to wireline service. And, as discussed above, until they offer a genuine economic alternative to wireline service, PCS providers will not erode BellSouth's local monopoly in Louisiana.

BellSouth offers a study by National Economic Research Associates (NERA) comparing residential service (local and intraLATA toll) in the New Orleans area under BellSouth wireline prices with Sprint PCS and PrimeCo PCS prices. BellSouth cites this study in support of its assertion that "pricing comparisons confirm that for low volume residential customers in Louisiana a PCS subscription can be less expensive than taking the equivalent wireline intraLATA services from BellSouth." (BellSouth Brief at p. 17)

Unfortunately, the NERA study is fundamentally flawed. Some straightforward corrections show that the cost of PCS to virtually all residential customers in Louisiana exceeds the cost of BellSouth's wireline service. In most cases, the PCS prices are far in excess of BellSouth's prices. I address now several significant faults with the NERA study.

First and foremost, the study itself states that for *any* residential customer with more than 300 minutes per month (outgoing and incoming) of combined local and intraLATA toll usage, BellSouth wireline service is less expensive than PCS. This is true regardless of the mix between local and intraLATA toll calls (i.e. low local/high toll user vs. high local/low toll user). This is also true regardless of the user's combination of vertical features (i.e. no vertical features vs. all five vertical features included with Sprint's PCS packages).[5] The reason for the price differential above this calling level is that PCS providers charge per

[5] The five vertical features included in Sprint's PCS package are voicemail, caller ID, call waiting, call forwarding and 3-way calling.

minute for incoming and outgoing calls, often with a certain number of minutes included in a monthly rate. BellSouth, on the other hand, includes unlimited local calling in its basic flat rate for residential users, only charges for outgoing toll calls, and offers an extended area service flat rate that caps intraLATA toll prices. The BellSouth customer will never pay more than $45.00 per month, regardless of the number of local or toll calls or the basket of vertical features selected by the customer (within the five features included in the study). PrimeCo offered, in July 1997, a special package including 300 minutes for $44.95 per month which was the lowest PCS price in the New Orleans market. Sprint PCS recently introduced a 400-minutes-for-$40.00 plan which raises this threshold to 400 minutes. At 300 minutes of use, PrimeCo's price is comparable to the highest BellSouth price, $45.00; up to 400 minutes of use, Sprint PCS' plan is less expensive than BellSouth's. Above 300 or 400 minutes, however, PrimeCo and Sprint PCS resume their per-minute charges and their prices quickly become much higher than BellSouth's capped $45.00. For example, for a caller with 500 local minutes, the BellSouth price would be $29.00, the PrimeCo price would be $96.95 and the Sprint PCS price $60.00. See Table 1.

[illegible]

Customer	Assumption	Local Minutes	IntraLATA Toll Minutes	BS Price (with VF)	BS Price (w/o VF)	Lowest Sprint Price	Lowest PrimeCo Price
A	NERA Low	50	0	$ 29.00	$ 12.64	$ 36.00	$ 26.95
B	NERA Low	25	25	$ 32.13	$ 15.77	$ 36.00	$ 25.00
C	NERA High	300	0	$ 29.00	$ 12.64	$ 40.00	$ 44.95
D	NERA High	300		$ 45.00	$ 31.00	$ 40.00	$ 44.95
E	NERA High	400		$ 45.00	$ 31.00	$ 40.00	$ 70.95
F	NERA High	400		$ 45.00	$ 31.00	$ 40.00	$ 70.95
G	NERA High	500	0	$ 29.00	$ 12.64	$ 60.00	$ 96.95
H	NERA High	500		$ 45.00	$ 31.00	$ 60.00	$ 96.95

Note 1 : BellSouth prices based on rates reported in NERA study. Sprint PCS and PrimeCo prices based on rates cited in NERA study, as well as other available rate plans as cited in 10/8/97 Robinson-Humphrey analyst report. See Appendix C. PCS providers generally do not charge for the first incoming minute; no attempt has been made here to account for this free minute, which will reduce PCS prices.

Note 2 : For combined minutes of use figures, it is assumed that the BellSouth customer purchases the Area Choice plan, which caps local and intraLATA usage at $45 (with vertical features) or $31 (without vertical features). There are, obviously, many scenarios for local/intraLATA combinations resulting in 300 or 500 combined minutes. The figures given represent BellSouth's minimum (assuming no intraLATA minutes) and maximum (assuming capped plans) rates.

The importance of this 300 (or 400)-minute figure becomes apparent when one reviews "typical" phone use in Louisiana. Average telephone line usage in Louisiana is **over 1500 minutes** of combined local/intraLATA toll use per month.[6] For reasons that elude me, the NERA study describes 300 minutes of phone use as "high" use, when actually it is in fact far less than the average. (Banerjee Affidavit, Appendix D, Tab 6 of BellSouth Application at p. 5.) The plain fact is, even for residential customers who are relatively light users of local exchange services, using less than one-quarter the average number of minutes per month, PCS is clearly more expensive than wireline service.

[6] Based on 1995 Louisiana average line use data available from the 1997 FCC Monitoring Report. Of course, this information does not accurately reflect differences between business and residential use patterns. However, it does provide some estimate of average minutes of use per phone line for purposes of benchmarking the accuracy of NERA's descriptions of 'low' and 'high' use customers. See Appendix B. I assume BellSouth collects data on calling patterns in Louisiana. To the extent that BellSouth's data supports NERA's assertions regarding low and high usage, the burden is upon BellSouth to supply this data.

Second, the NERA study errs badly in its treatment of vertical services. The errors occur on two levels: factual and analytical.

As a pure factual matter, the NERA study erroneously assumes that all five vertical features present in Sprint's PCS plans are also present in the PrimeCo PCS plans. It is my understanding that the PrimeCo plans include voicemail and call waiting, but not caller ID, 3-way calling or call forwarding.

Second, and more fundamentally, the NERA study makes the faulty assumption that all customers would buy BellSouth's "Complete Choice" package of vertical services if they were to use wireline service. "Complete Choice" costs $29 per month, vs. $12.64 per month for basic 1FR service; the incremental cost of the vertical services is $16.36. The NERA calculations are in fact only valid for customers who value the package of vertical services at $16.36 or more. Because the vertical services are rather expensive relative to basic local service, the NERA errors in the treatment of vertical services are far from minor.

The NERA assertion that PCS is cheaper than BellSouth's wireline service in fact currently applies only to the following residential customer profile: a customer with extremely low calling volume in comparison with the average (less than 10% of the average) who *nonetheless* places a *high* value on the package of vertical services! Clearly, this is a very small set of customers, especially considering that the vertical services are a *complement* to calling volume, i.e., are worth more, the more calls the customer makes.

In almost every scenario, if not all, even a very low usage customer (under 50 minutes local or 100 minutes toll) who purchases the same set of vertical features as offered under PrimeCo's plan, or no vertical features at all, would find BellSouth service cheaper.[7] Consequently, even BellSouth's assertion that very low volume customers pay less with PCS providers applies only to that sub-segment of customers that chooses to purchase all or the majority of the vertical features included in NERA's comparison. Again, see Table 1.

Another way to look at these data is to compare the price of BellSouth's service to that of PCS service for a customer with an average calling pattern.[8] Specifically, consider a customer who makes 1627 minutes of local calls and 123 minutes of intraLATA toll calls per month. Suppose further that this customer purchases the full package of five vertical services from BellSouth. The monthly BellSouth bill would be $45.00. Without the vertical services, the BellSouth bill would be $31.00. The lowest price available from Sprint PCS would be $290.02, and the lowest price from PrimeCo would be $421.98. PCS only becomes consistently less expensive than BellSouth wireline service for customers with less than 5% of the average local and estimated intraLATA usage. See Table 2.

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[7] For example, the customer with 50 minutes local calling would pay $26.95 under PrimeCo's May-June 1997 promotion; the lowest Sprint price would be $36.00. BellSouth service, with all vertical features, is $29.00. However, the most appropriate comparison is BellSouth service with voicemail and call waiting, the two vertical features included in the PrimeCo plan that BellSouth also offers; this service plan would cost the BellSouth customer $23.20, still less than PrimCo. However, if the customer chooses not to purchase vertical features, an option with BellSouth but not PrimeCo or Sprint, he could pay as little as BellSouth's basic 1FR of $12.64 per month for unlimited local calling. The 50-minute-per-month customers with equal amounts of local and toll (25 minutes each) could pay $26.95 under a PrimeCo plan, $36.00 under a Sprint plan or $32.13 with BellSouth, if the customer purchased vertical features. If the customer chose to not purchase all the vertical features, but rather none or just one or two, BellSouth's service would be less expensive. With no vertical features, that customer is paying BellSouth just $15.77.

[8] See Appendix B.

[illegible]

Customer	Assumption	Local Minutes	Estimated IntraLATA Minutes	BellSouth Price (w/ VF)	BellSouth Price (w/o VF)	Lowest Sprint PCS Price	Lowest PrimeCo Price
1	Average	1627	123	$ 45.00	$ 31.00	$ 290.02	$ 421.98
2	50% Ave.	814	62	$ 36.69	$ 20.33	$ 115.01	$ 194.46
3	25% Ave.	407	31	$ 32.85	$ 16.49	$ 49.38	$ 80.71
4	10% Ave.	163	12	$ 30.54	$ 14.18	$ 40.00	$ 44.95
5	9% Ave.	146	11	$ 30.38	$ 14.02	$ 40.00	$ 44.95
6	7% Ave.	114	9	$ 30.08	$ 13.72	$ 40.00	$ 43.61
7	5% Ave.	81	6	$ 29.77	$ 13.41	$ 40.00	$ 38.20
8	3% Ave.	49	4	$ 29.46	$ 13.10	$ 37.00	$ 27.70
9	1% Ave.	16	1	$ 29.15	$ 12.79	$ 23.00	$ 17.20

Source: 1997 FCC Monitoring Report, Tables 4.15 - 4.18.

***Note 1**: BellSouth prices based on rates reported in NERA study. Sprint PCS and PrimeCo prices based on rates cited in NERA study, as well as other available rate plans as cited in 10/8/97 Robinson-Humphrey analyst report. See Appendix C.*

***Note 2**: Assumes average customer in Louisiana makes one minute of intraLATA toll calls for every 13 minutes of local calls, based on the average proportion of intrastate to local minutes in Louisiana. Note that this is a conservative estimate, since the intrastate minutes of use figures used to calculate this proportion includes intrastate interLATA minutes in addition to intraLATA minutes. The actual number of intraLATA minutes alone would be lower.*

In addition, the NERA analysis fails to account for two additional costs associated with a consumer's choice to use PCS rather than wireline service. First, the cost of a PCS handset remains significant. PCS phones regularly cost around $100, and can cost as much as $200 or more. Sprint PCS' and PrimeCo's Fall 1997 promotions in New Orleans offered a lowest handset price of $99 - for Sprint PCS, this price is after a $50 rebate and for PrimeCo, it is for a refurbished phone.[9] This is not an insignificant cost to PCS consumers.

Second, NERA fails to include interLATA minutes in its calculations of PCS prices. PCS providers in Louisiana charge per minute airtime fees on interLATA calls *in addition* to applicable long distance charges. This is equivalent to charging PCS users for access to long distance services. BellSouth local service, in contrast, allows users to make long distance calls at no additional

[9] Based on Sprint PCS and PrimeCo PCS advertisements displayed in the New Orleans market in September and October 1997.

cost - customers pay only the long distance charges. The exclusion of these charges seriously understates actual PCS prices. Given that the average Louisiana customer makes 230 minutes of interstate interLATA calls per month, these per minute charges add significantly to the PCS user's monthly bill.[10]

In sum, PCS is far more expensive than BellSouth wireline service for the vast majority of residential customers in Louisiana. PCS is less expensive than BellSouth wireline service in New Orleans only for customers spending less than 50 minutes on local calls or 100 minutes on toll calls per month and who would nonetheless purchase all or the majority of the five vertical features included in BellSouth's "Complete Choice" package. Given that the *average consumer in Louisiana makes over 1500 minutes of local calls per month* and spends *at least 13 minutes* on the phone on local calls for every *one* he spends on an intraLATA call, and given that few very-low-use customers are likely to purchase the "Complete Choice" package, the calling and purchasing patterns underlying the NERA study are surely very rare.[11] The NERA study also fails to account for PCS phone prices and mistakenly excludes long distance minutes from its price comparisons. Contrary to the NERA conclusions, the data on calling patterns and pricing plans show clearly that PCS in Louisiana is less expensive than BellSouth's wireline services only for a very, very small portion of customers under very circumscribed conditions. Certainly PCS has not yet been shown to be sufficiently comparable in price to be a real option for most Louisiana consumers.

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[10] As an example, consider the PCS user whose local and intraLATA calls combined meet or exceed his PCS plan's included minutes. That user will have to pay an additional per minute charge for every one of these 230 minutes of long distance calling. Sprint PCS' lowest charge per additional minute is $.20, and PrimeCo's lowest is $.15; these charges would add $46.00 and $34.50 to the user's monthly bill respectively. See Appendix C. Note also that this 230 average minutes is *interstate* interLATA only - it does not include intrastate interLATA minutes, which would increase the average user's total interLATA minutes.

IV. Assessing Potential Local Competition in Louisiana

BellSouth's application relies heavily on the proposition that local exchange markets in Louisiana are currently open to competition, irrespective of the minimal actual wireline and PCS competition observed. As a starting point, this proposition seems inconsistent with Sprint's experience to date in other BellSouth states in which BellSouth reportedly employs the same processes and systems in support of unbundled elements as in Louisiana. Beyond that, however, one can assess the state of competition by looking at the stated plans and commitment of sunk costs by would-be entrants, and by looking directly at barriers to entry.[12]

A. Evidence of Entry Plans and Sunk Investments

My examination of the announced plans of the potential and actual local exchange entrants identified in the BellSouth application does not reveal the imminent emergence of local exchange competition in Louisiana. Only one CLEC, ACSI, is offering facilities-based local service, and that is only to business customers and for less than five months, with no apparent intention to begin service to residential customers. Although the record indicates that American MetroComm and KMC TeleCom intend to enter Louisiana's local exchange market, they have not yet done so, lending further support to this conclusion. Of the major interexchange carriers, only AT&T has an LPSC-approved interconnection agreement with BellSouth in Louisiana. MCI Metro's August 1997 interconnection agreement with BellSouth has not yet been approved.

(... footnote continued)

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[11] See Appendix B.

[12] Appendix A includes a portion of my testimony in BellSouth's South Carolina Section 271 application, where I discuss the general economic principles for assessing the state of potential competition.

(Wright Affidavit at Exhibit A) Sprint and BellSouth are still in the process of negotiating an interconnection agreement. (Closz Affidavit at para. 4)

Lacking direct evidence that significant competition in local exchange markets is imminent, the analysis proceeds to the next step, looking for significant investments of sunk costs specific to local exchange service in Louisiana. Investments that are sunk and specific to the provision of local exchange service provide some indication of future competition. How significant are such investments in Louisiana? The record is unclear on this question. Certainly there are some facilities in Louisiana, such as the networks of ACSI, American MetroComm and KMC TeleCom, that could be used for local exchange services. This is a start, but hardly an indication that widespread or significant competition is imminent. Shell Offshore Services Company has a network in New Orleans, but has not yet implemented facilities-based service. Cox Fibernet's network also serves only New Orleans and its intentions to offer local exchange services remain uncertain. As of October 1997, Cox Fibernet had not negotiated an interconnection agreement with BellSouth. (BellSouth Brief at p. 19) MCI, which previously announced plans to construct networks in New Orleans and Baton Rouge, has not yet begun construction of these facilities. (Wright Affidavit at p. 47)

Given the competitive pressure in the industry to offer broader bundles of telecommunications services to customers, a lack of significant entry into local exchange markets, *e.g.*, by major interexchange carriers, suggests that the terms and conditions of interconnection are not yet conducive to that entry.

B. Entry Barriers into Local Exchange Markets in Louisiana

With no direct evidence indicating that local exchange competition is imminent in Louisiana, the next step in the economic analysis is to look directly at the entry barriers into local exchange markets in Louisiana.

1. *Risks Associated with Local Entry Generally*

Until CLECs can be confident that they will obtain interconnection on commercially acceptable terms that will allow them to achieve operational parity with BellSouth, entrants surely attribute considerable interconnection risk to any sunk investments they might contemplate. This "risk premium" can serve only to delay or deter entry and the advent of competition. This is especially true for a company like Sprint, with a valuable brand name that could be put at risk if service quality is degraded due to interconnection problems. I would expect Sprint and others to be extremely wary of offering service, and undertaking the concomitant marketing rollout expenses, under their brand names unless and until they can ensure service quality - from the pre-ordering of services to the provisioning of repair - on par with BellSouth. To do otherwise would put their brand names at risk in Louisiana, and potentially place them at a major disadvantage for years to come in selling bundles of services in competition with BellSouth. If Sprint's brand name is tarnished as a result of premature entry into local service, its accumulated goodwill in long-distance could likewise be jeopardized. As noted below, for a number of aspects of interconnection, it is currently impossible for CLECs to ensure that they are receiving competitive and operating parity with BellSouth itself.

2. *Unresolved Interconnection Issues in Louisiana*

It is imperative that interconnection issues be resolved before concluding that competition is enabled; when it comes to interconnection, the devil truly is in the details. The myriad aspects of interconnection cannot be left for later, because they are so crucial to CLECs' abilities to compete effectively. Many aspects of interconnection that remain unresolved have significant implications for either CLECs' costs or the quality of their service, and thus for the attractiveness of entry into local markets.

If CLECs were providing services on a commercial scale in a variety of settings in Louisiana, we could be confident that interconnection was working (although the need for ongoing regulation would not soon end). In fact, however, CLECs collectively provide facilities-based service to a mere handful of business customers in Louisiana and resold services to a few business and residential customers. The limited presence of PCS providers does little to demonstrate the extent to which BellSouth's local interconnection processes and operational support systems are working, because PCS providers are not reliant upon the vast majority of these processes or facilities. PCS providers do not purchase unbundled network elements from the BOC, and consequently do not use the retail ordering and billing systems; instead, PCS carriers use the wholesale systems for ordering trunks which have been in existence for years and are, as opposed to newly-created interconnection processes and OSS, well-tested. Moreover, numerous problems have been reported with BellSouth's interconnection terms and conditions across its region and, short of evidence of interconnection working in practice, there is no assurance that these problems are not present in Louisiana as well.

Under these circumstances, and given the attractiveness of the Louisiana marketplace to a number of carriers, including the larger interexchange carriers seeking to offer bundles of telecommunications services, I believe there should be a presumption that the terms and conditions of interconnection either (a) fail to provide parity between BellSouth and CLECs, or (b) simply have not been available long enough to be reliably tested and used by CLECs. In the former case interconnection is either not yet fully implemented or is discriminatory, and Section 271 approval is inappropriate. In the latter case, especially given the reported problems with interconnection in other BellSouth states, the public interest is still served by waiting until interconnection is confidently enabled before granting BellSouth in-region long-distance authority.

When significant aspects of interconnection remain unresolved, CLECs' abilities to compete remain significantly under the control of the BOC. If further cooperation from the BOC is needed to make actual or potential local exchange competition economically meaningful, approval of the BOC's Section 271 application is premature and will diminish consumer welfare.

Nor can the FCC, or the LPSC, simply compel BellSouth to meet reasonable interconnection terms in the future. Regulation is inevitably highly imperfect, and entrants will be reluctant to rely on future, uncertain regulatory protections when making substantial sunk investments. There is much to be said for "stress testing" interconnection terms and conditions in practice before concluding that an interconnection agreement can work in practice and that interconnection is "fully implemented." Ultimately, since regulation is necessarily imperfect, the public interest is served by augmenting the usual set of regulatory tools by using the 271 process to help induce BellSouth and other BOCs to offer workable, high-quality interconnection.

The experiences of Sprint and other would-be CLECs in other BellSouth states confirm how difficult it is to make interconnection really work in practice. Specific aspects of interconnection remain to be fully implemented in all of BellSouth's service areas, including Louisiana. Some difficulties are inevitable; interconnection is highly complex, and only now are BellSouth and CLECs hammering out the details. But that is precisely the point. There is great value in giving incentives to BellSouth, the incumbent monopolist, to cooperate to resolve these disputes and clarify remaining ambiguities.

Without intending to offer an exhaustive or necessarily representative list of outstanding interconnection issues in BellSouth states, I list a number of them here to illustrate that they are both unresolved and truly critical for CLECs to enter and grow.

- Several CLECs have complained that BellSouth's operational support systems (OSS) are simply not adequate. According to public comments by AT&T, the capacity of BellSouth's LENS system is insufficient. MCI has expressed frustration with the inability of CLEC customer service representatives to make changes if mistakes are made in a LENS order; the entire order must be retyped. Unbundled network element (UNE) orders must also be at least partially manually processed. These problems with BellSouth's OSS inhibit CLECs' ability to offer timely, high quality service to their customers. BellSouth's stated intention to double LENS' capacity does not alleviate concerns that such capacity will fail to meet CLECs' needs, and does nothing to address other deficiencies in the system.[13]

- The Department of Justice, in its review of BellSouth's Section 271 application in South Carolina, concluded that BellSouth's OSS have not demonstrated that they will be sufficient to adequately enable interconnection: "BellSouth's systems have experienced little commercial use, but that limited experience suggests potentially serious system inadequacies that have not yet been fully addressed. Moreover, the limited capacity of key systems suggests that performance problems are likely to be far more serious when competitors begin to order unbundled elements or resale services in competitively significant volumes."[14]

- ACSI's firsthand experience as a facilities-based provider in the BellSouth states of Georgia, Alabama and Kentucky indicate that BellSouth's OSS are cumbersome and limiting to CLECs. Many orders and processes still require a mix of fax and manual processes for completion. According to ACSI, these deficiencies in BellSouth's OSS have "the ability to

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[13] "With $500 Million OSS in Hand, BellSouth Gets Ready to Apply for Long Distance," *Communications Today*, September 12, 1997. According to this article, BellSouth concedes that its OSS does not meet the FCC requirement that its interfaces require little or no human intervention. See also Prefiled Direct Testimony of Riley M. Murphy, as adopted by James C. Falvey, Before the South Carolina Public Service Commission, Appendix C, Volume 7, page 341.

[14] Evaluation of the US Department of Justice, In the Matter of Application by BellSouth Corporation for Provision of In-Region, InterLATA Services in South Carolina, Before the FCC, Docket No. 97-208, November 4, 1997, p. 29.

greatly affect ACSI's ability to compete with BellSouth in the local markets....Based on ACSI's experience in Georgia, the current electronic fax/manual processes are extremely cumbersome." ACSI also expresses the concern, discussed above, that BellSouth's electronic interfaces will not handle sufficient volumes to support CLEC growth in local markets.[15]

- Sprint has already experienced problems with BellSouth's implementation of its customer activation process in Florida. According to Sprint, BellSouth "regularly misses its commitment to provide Firm Order Confirmation to [Sprint] within 48 hours of receipt of a complete and accurate order...BellSouth also consistently fails to notify [Sprint] in a timely fashion of facilities issues which will prvent [Sprint] from meeting its due date commitment..."[16] The result is that Sprint misses due date commitments to its customers; in several instances BellSouth has failed to cancel disconnect orders and customers have mistakenly been taken out of service. These problems have extensive negative impact on customers and on Sprint's reputation. Again, because BellSouth uses the same processes with respect to checklist items throughout its nine states, Sprint's experience in Florida is relevant to this proceeding.

- Sprint is likewise concerned about how electronic interfaces between itself and BellSouth will operate to provide Sprint with reasonable, timely and economical access to customer records and billing data. Such concerns appear legitimate given that Sprint has experienced some difficulties and delays in receiving local service from BellSouth in other BellSouth states. (Id., at p. 19-28)

- ACSI has stated that it has "experienced considerable difficulty in implementing the ACSI Interconnection Agreement in Georgia, Alabama, and Kentucky, as well as

[15] BellSouth's Application for Provision of In-Region, InterLATA Services in South Carolina, Before the FCC, Docket 97-208, Testimony of Falvey at App. C, Vol. 7, p. 341.

[16] Affidavit of Melissa Closz, on Behalf of Sprint Communications Company, In the matter of Application by BellSouth et al. for Provision of In-Region, InterLATA Service in Louisiana, Before the FCC, Docket 97-231, p. 19-20

other BellSouth states."[17] ACSI cites repeated difficulty in obtaining unbundled loops on a timely basis, severe service disruptions to customers as a result of BellSouth's inability to cut over unbundled loops, and failure of number portability systems resulting in service outages. The problems obtaining unbundled loops have been severe enough to induce ACSI to file complaints against BellSouth before both the Georgia Public Service Commission and this Commission. (Id., at p. 334)

- ACSI also depicts BellSouth as unwilling to rectify its problems in providing timely loop installations: "The basic problem is that BellSouth still cannot - or will not - install loops for ACSI at the same intervals as they do for their own retail customers. In fact, BellSouth has yet to provide satisfactory statistics as to what those intervals are. ACSI's unbundled loop cutover intervals of over two hours [committed to 30 minutes in the ACSI Interconnection Agreement] are still routine occurrences...In Georgia, ACSI has asked BellSouth to agree to specific installation intervals with prescribed penalties for failure to meet them. BellSouth has refused." (Id., at p. 337 and p. 342)

- The Department of Justice concluded that BellSouth's LENS system "does not offer parity with BellSouth's retail operation," citing three primary areas in which parity is absent: (1) BellSouth's application-to-application EDI interface for ordering only supports CLEC orders of business and residential POTS, PBX and DID trunks, "not all of the services that BellSouth retail representatives can order electronically;" (2) Ordering and provisions system flow-through rates are significantly lower for CLECs than for BellSouth, citing AT&T's flow-through rates of "26.2% and 33.7% of EDI and LENS orders for July and August 1997 respectively...in contrast, the Department understands that no less than 97% of BellSouth's residential orders and 81% of its business orders flow through;" and (3) Order rejections do not

[17] BellSouth's Application for Provision of In-Region, InterLATA Services in South Carolina, Before the FCC, Docket 97-208, Testimony of Falvey at App. C, Vol. 7, p. 334.

flow back to CLECs electronically, but are handled manually and returned to CLECs via fax; "this manual handling at BellSouth's end, as well as the manual handling required at the CLEC end because of the communication via facsimile, can cause significant delays in the handling of CLEC orders and is also prone to error. Fundamentally, this does not provide parity with BellSouth retail operations." (DOJ Evaluation at A-22 - A-23)

In listing these outstanding interconnection issues, I have not assumed that every criticism of BellSouth's interconnection arrangements and negotiations is meritorious. My point is simply that interconnection in Louisiana is currently in a tremendous state of flux, and that CLECs remain heavily reliant on BellSouth for key inputs.

These examples are not meant to cover all of Sprint's concerns in Louisiana, and I do not claim familiarity with the details of Sprint's planned local operations in Louisiana or its negotiations with BellSouth. However, they illustrate a variety of important "details" that must be worked out in practice before Sprint can successfully offer local exchange services.

I declare under penalty of perjury, under the laws of the United States of America, that the foregoing is true and correct to the best of my knowledge, information, and belief.

Executed on the 24th day of November, 1997 in Oakland, California

Carl Shapiro

Carl Shapiro

Shapiro Appendix A

Appendix A

Economic and Public Interest Framework for Evaluating Section 271 Applications[1]

I. Summary of Testimony

My testimony covers two broad areas. First, I offer a general economic framework for evaluating Section 271 applications, including BellSouth's application to provide in-region interLATA services in South Carolina. My hope is that the Federal Communications Commission ("FCC" or the "Commission") will find this framework useful in evaluating this and other Section 271 applications according to the public interest standard in the Act. Second, drawing on BellSouth's application and the filings of other interested parties, I apply my framework to South Carolina. In particular, I evaluate the current state of local exchange interconnection and local exchange competition in South Carolina.

A. Economic Framework

In the general part of my analysis that presents an economic framework for assessing Section 271 applications, I conclude that interconnection agreements must be demonstrated to be working in practice on a commercial

[1] Originally filed as Declaration of Carl Shapiro on Behalf of Sprint, In the Matter of the Application by BellSouth for Provision of In-Region InterLATA Services in South Carolina, Before the Federal Communications Commission, October 17, 1997. This does not constitute the entire declaration as filed in that proceeding; only those portions outlining my economic and public interest framework for evaluating Section 271 applications, generally, are included.

scale before checklist compliance can be regarded as economically meaningful, and in order to meet the public interest standard for approving Section 271 applications under Track A.

While Track B can be appropriate if competitive local exchange carriers (CLECs) truly are not attempting to interconnect, the public interest will not be served if Track B can be used to circumvent the "working in practice on a commercial scale" standard just articulated for Track A. Given the significant harm to local competition that predictably will occur if 271 approval is prematurely granted, the Bell Operating Company (BOC) has a considerable burden under Track B to provide convincing evidence that barriers to interconnection have indeed been eliminated. The fact that American Communications Services Inc. (ACSI), which has no strategic motive to keep BellSouth out of long distance, has identified problems with interconnection with BellSouth, suggests that these barriers remain real.

There is widespread agreement that the public interest will be served if states and the FCC take advantage of the historic opportunity provided by the Act to ensure that local telephone markets are opened up to competition. Since these markets are currently monopolized, economics tells us that introducing competition into them offers potentially large social gains. To open these markets will require ongoing, extensive, and detailed cooperation from incumbent local exchange carriers (ILECs). No monopolist lightly relinquishes its dominant position. Recognizing this, Congress provided a powerful incentive for Bell Operating Company cooperation by providing conditions necessary for BOCs to enter interLATA markets.

It would be a mistake to relinquish the Section 271 lever until local markets are demonstrably open. If Section 271 authorization is granted before we are confident that the required BOC cooperation has indeed been forthcoming and will continue, the strong incentives for BOC cooperation created by the Section 271 process will be lost, and the emergence of local competition will be undermined. This situation would be difficult to rectify, since Section 271 approval would be virtually impossible to reverse. On the other hand, if Section 271 approval is deferred until interconnection has been proven to work, such approval can then be granted quickly once local competition is reliably enabled. Thus, uncertainty favors erring on the side of caution and withholding approval until meaningful interconnection has been clearly demonstrated.

Premature approval of Section 271 applications is especially dangerous since competitive local exchange carriers are so reliant on BOCs to gain even a foothold in local markets, and since the required cooperation is so multifaceted and complex. Because of these complexities, regulatory oversight will necessarily be highly imperfect, especially until procedures have been ironed out and interconnection has been proven to work in practice. To approve BellSouth's South Carolina Section 271 application before the highly intricate and complex interconnection relationships between BellSouth and CLECs have been